

# CONTENTS

**Special Issue: First International Conference on Immunology and Aging  
Organised by the Institute for Advanced Studies in Immunology and Aging  
Washington, June 16-19, 1996**

Th1/Th2 changes in aging (Commentary) G.M. Shearer (Bethesda, MD) . . . . .	1
Evidence of enhanced type 2 immune response and impaired upregulation of a type 1 response in frail elderly nursing home residents S. Castle, K. Uyemura, W. Wong, R. Modlin, R. Effros (Los Angeles, CA) . . . . .	7
Does the secretion of cytokines in the periphery reflect their role in bone metabolic diseases? V.M. Natale, W.J. Filho, A.J.S. Duarte (São Paulo, Brazil) . . . . .	17
Cytokines and impaired CD8 <sup>+</sup> CTL activity among elderly persons and the enhancing effect of IL-12 I.N. Mbawuike, C.L. Acuna, K.C. Walz, R.L. Atmar, S.B. Greenberg, R.B. Couch (Houston, TX) . . . . .	25
Characteristics and maintenance of CD8 <sup>+</sup> T-cell clones found in old mice C.-C. Ku, J. Kappler, P. Marrack (Denver CO) . . . . .	41
The age-associated decline in immune function of healthy individuals is not related to changes in plasma concentrations of $\beta$ -carotene, retinol, $\alpha$ -tocopherol or zinc E.M. Gardner, E.D. Bernstein, M. Dorfman, E. Abrutyn, D.M. Murasko (Philadelphia, PA) . . . . .	55
Diminished activation of the MAP kinase pathway in CD3-stimulated T lymphocytes from old mice G. Gorgas, E.R. Butch, K.-L. Guan, R.A. Miller (Ann Arbor, MI) . . . . .	71
Thymosin $\alpha_1$ antagonizes dexamethasone and CD3-induced apoptosis of CD4 <sup>+</sup> CD8 <sup>+</sup> thymocytes through the activation of cAMP and protein kinase C dependent second messenger pathways C.A. Baumann, M. Badamchian, A.L. Goldstein (Washington, D.C.) . . . . .	85
Thymocyte progenitors and T cell development in aging S. Yu, L. Abel, A. Globerson (Rehovot, Israel; Jinan, Peoples Republic of China) . . . . .	103
Altered expression of various receptors on T cells in young and old mice after mitogenic stimulation: a flow cytometric analysis A. Wakikawa, M. Utsuyama, K. Hirokawa (Tokyo, Japan) . . . . .	113
Increased apoptosis of CD45RO <sup>+</sup> T cells with aging F.J. Herndon, H.-C. Hsu, J.D. Mountz (Birmingham, AL) . . . . .	123
Age-related changes in non-receptor dependent generation of reactive oxygen species from phagocytes of healthy adults I.N. Bruce, J.A. McNally, I.M. Rea, A.L. Bell (Toronto Ont., Canada; Belfast, UK) . . . . .	135

Norepinephrine content in primary and secondary lymphoid organs is altered in rats with adjuvant-induced arthritis D. Lorton, C. Lubahn, S.Y. Felten, D. Bellinger (Sun City, AZ; Rochester, NY) . . . . .	145
Alterations in sympathetic innervation of thymus and spleen in aged mice K.S. Madden, D.L. Bellinger, S.Y. Felten, E. Snyder, M.E. Maida, D.L. Felten (Rochester, NY) . . . . .	165
The monitoring biomarker for immune function of lymphocytes in the elderly J. Liu, S. Wang, H. Liu, L. Yang, G. Nan (Beijing, P.R. China) . . .	177
Prevalence of organ-specific and non organ-specific autoantibodies in healthy centenarians G. Candore, G. Di Lorenzo, P. Mansueto, M. Melluso, G. Fradà, M. Li Vecchi, M.E. Pellitteri, A. Drago, A. Di Salvo, C. Caruso (Palermo, Italy) . . . . .	183
HLA and longevity or aging among Shanghai Chinese M. Yong-Xing, Z. Yue, W. Zan-Shun, W. Chuan-Fu, C. Su-Ying, Z. Mao-tong, Z. Gong-Liang, Z. Su-Qin, Z. Jian-Gang, G. Qi, H. Lin (Shanghai, China) . . . . .	191
$\beta$ -Amyloid-induced IL-1 $\beta$ release from an activated human monocyte cell line is calcium- and G-protein-dependent D. Lorton (Sun City, AZ) . . . . .	199
Increased incidence of anti- $\beta$ -amyloid autoantibodies secreted by Epstein-Barr virus transformed B cell lines from patients with Alzheimer's disease S. Xu, F. Gaskin (Charlottesville, VA) . . . . .	213
Interactions of the alzheimer $\beta$ amyloid fragment <sub>(25-35)</sub> with peripheral blood dendritic cells T.L. Schmitt, M.-M. Steger, M. Pavelka, B. Grubeck-Loebenstein (Innsbruck, Austria) . . . . .	223
Attenuated stress responses in young and old human lymphocytes D.A. Jurivich, L. Qiu, J.F. Welk (Chicago, IL) . . . . .	233
Creating knowledge relevant for public health applications in immunology and aging K. Dean (Copenhagen, Denmark) . . . . .	251
Author index	263
Subject index	265

*Publisher's Notice:* This is the second issue containing papers presented at the First International Conference on Immunology and Aging. Previously, papers were published in Volume 93 and further papers will be published in future issues in 1997.

